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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,094	02/08/2002	Francisco Javiar Garcia-Ladona	0480/01203	5429

7590 09/24/2004

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EXAMINER	
LOCKARD, JON MCCLELLAND	
ART UNIT	**PAPER NUMBER**
1647	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/868,094	GARCIA-LADONA ET AL.	
	Examiner	Art Unit	
	Jon M Lockard	1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-29 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-29 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-2, 11, and 12 (in part), drawn to methods of treatment in a human by administering a compound that modifies or induces homer expression.

Group II, claim(s) 3, drawn to methods of treatment of oncological disorders in a human by administering a compound that modifies homer expression.

Group III, claim(s) 4-6, drawn to methods of treatment of neuroleptic induced disorders or psychosis in a human by administering a compound that interacts or effects an inhibition of a metabotropic receptor.

Group IV, claim(s) 7, drawn to methods of treatment of neuroleptic maligne syndrome in a human by administering a compound that interacts with metabotropic receptors and/or homer.

Group V, claim(s) 8 (in part), drawn to nucleic acids set forth as SEQ ID NO:3.

Group VI, claim(s) 8 (in part), drawn to nucleic acids set forth as SEQ ID NO:5.

Group VII, claim(s) 8 (in part), drawn to nucleic acids set forth as SEQ ID NO:7.

Group VIII, claim(s) 8 (in part), drawn to nucleic acids set forth as SEQ ID NO:9.

Group IX, claim(s) 9, drawn to methods of screening compounds which modify homer expression using Hel cells, A-172 cells, U97 cells, or glial cells.

Group X, claim(s) 10 (in part), drawn to methods of screening compounds modifying homer and metabotrope receptors using Hel cells, A-172 cells, U97 cells, or glial cells.

Group XI, claim(s) 10 (in part), drawn to methods of screening compounds modifying homer and other cell signaling proteins using Hel cells, A-172 cells, U97 cells, or glial cells.

Group XII, claim(s) 12 (in part) and 13, drawn to methods of treating a degenerative disease involving cell degeneration, cell death, or apoptosis by administering a homer peptide and the disease associated target is a human homologue of AFG2 protein.

Group XIIII, claim(s) 12 (in part) and 14, drawn to methods of treating a neurodegenerative disease including ischemia and stroke by administering a homer peptide and the disease-associated target is insulin like growth factor.

Group XIV, claim(s) 12 (in part) and 15, drawn to methods of treating hepatic degenerative disease processes by administering a homer peptide and the disease-associated target is interleukin 6 binding protein.

Group XV, claim(s) 12 (in part) and 16, drawn to methods of treating tissue degenerative processes involving cell death or apoptosis including neurodegenerative disease and ischemia-induced degeneration by administering a homer peptide and the disease-associated target is cytochrome oxidase or cytochrome p450 X1A1 or topoisomerase I.

Group XVI, claim(s) 12 (in part) and 17, drawn to methods of treating brain diseases and tumor progression by administering a homer peptide and the disease-associated target is GPI-linked NAD-arginine ADP-ribosyltransferase.

Group XVII, claim(s) 12 (in part) and 18, drawn to methods of treating metabolic disorders including obesity by administering a homer peptide and the disease-associated target is pyruvate carboxylase.

Group XVIII, claim(s) 12 (in part) and 19, drawn to methods of treating diseases associated with cholesterol production including senile disorders by administering a homer peptide and the disease-associated target is low density lipoprotein receptor related protein.

Group XIX, claim(s) 12 (in part) and 20, drawn to methods of treating a neurodegenerative disease by administering a homer peptide and the disease-associated target is human F-spondin.

Group XX, claim(s) 12 (in part) and 21, drawn to methods of treating herpes simplex infection and propagation by administering a homer peptide and the disease-associated target is DNA helicase/primase complex associated protein.

Group XXI, claim(s) 12 (in part) and 22, drawn to methods of treating herpes simplex infection and propagation by administering a homer peptide and the disease-associated target is UL56 protein.

Group XXII, claim(s) 12 (in part) and 23, drawn to methods of treating varicelazoster virus infection and propagation by administering a homer peptide and the disease-associated target is serine-threonine-protein kinase.

Group XXIII, claim(s) 12 (in part) and 24, drawn to methods of treating sarcoma virus infection and propagation by administering a homer peptide and the disease-associated target is sarcoma virus.

Group XXIV, claim(s) 12 (in part) and 25, drawn to methods of treating Japanese encephalitis virus infection and propagation by administering a homer peptide and the disease-associated target is NS proteins.

Group XXV, claim(s) 12 (in part) and 26, drawn to methods of treating bovine immunodeficiency virus infection and propagation by administering a homer peptide and the disease-associated target is virion infectivity factor (factor Q).

Group XXVI, claim(s) 12 (in part) and 27, drawn to methods of treating pox virus infection and propagation by administering a homer peptide and the disease-associated target is protein A11.

Group XXVII, claim(s) 12 (in part) and 28, drawn to methods of treating trypanosomiasis by administering a homer peptide and the disease-associated target is retrotransposable element slacs 45 kD protein.

Group XXVIII, claim(s) 12 (in part) and 29, drawn to method of treating candida albicans infection and propagation by administering a homer peptide and the disease-associated target is topoisomerase I.

2. The inventions listed as Groups I-XXVIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Pursuant to 37 C.F.R. § 1.475(B-D), the ISA/US considers that where multiple products and processes are claimed, the main invention shall consist of the first invention of the category first mentioned in the claims and the first recited invention of each of the other categories related thereto. Accordingly, the main invention (Group I) comprises the first recited method, a method of treatment in a human by administering a compound that modifies homer expression. Groups II-IV and IX-XXVIII do not share the same or corresponding special technical feature because the Group II-IV and IX-XXVIII inventions are drawn to methods of treatment of different diseases in a human by administering a homer peptide. Furthermore, each disease is considered to constitute a patentably distinct species because they have different etiologies, symptoms, and physiological results, and would require separate search and consideration. The Group V-VIII inventions are drawn to nucleic acids which are structurally and functionally different chemical compounds, each of which can be made and used without the other compound. Lack of unity is shown because these methods and compounds lack a common utility which is based upon a common technical feature which has been identified as the basis for that common utility.

3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jon M. Lockard, Ph.D.** whose telephone number is **(571) 272-2717**. The examiner can normally be reached on Monday through Friday, 8:00 AM to 6:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Brenda Brumback, Ph.D.** can be reached on **(571) 272-0961**.

The fax number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see **http://pair-direct.uspto.gov**. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Eileen B. O'Hara

JML
September 22, 2004

EILEEN B. O'HARA
PATENT EXAMINER